Outreach of geological and geographical sciences using social media in combination with TV programs

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Social media can be used together with classic media such as TV, radio, and newspapers. Such an approch may be effective for outreach of geological and geographical sciences. This paper introduces tweets related to a geographical TV program and indicates advantages of social media combined with classic media.

Keywords: Social media, TV program, outreach

Classification of the usage of social media in the Geoscience field

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This document classifies presentations in social media session in JpGU of past five years.

Keywords: Social Media, Type of the Usage, Geoscience field

| データの個数 / 分類 | 列ラベル | | | | | |
|---|---|---|---|---|---|---|
| 行ラベル | 2011 | 2012 | 2013 | 2014 | 2015 | 総計 |
| 専門家からのアウトリーチ | 3 | 5 | 6 | 1 | 3 | 18 |
| 研究者コミュニティの活性化 | 3 | 3 | | 1 | 1 | 8 |
| チーム内情報共有・コミュニケーション | 2 | | 1 | 2 | 1 | 6 |
| ソーシャルメディアによるセンシング | 1 | 1 | 1 | 1 | 1 | 5 |
| その他 | 1 | | | 3 | | 4 |
| 一般コミュニティの支援 | | | 1 | 2 | | 3 |
| 防災 | 2 | 1 | | | | 3 |
| 教育手法・実践 | 1 | 1 | | 1 | | 3 |
| 総計 | 13 | 11 | 9 | 11 | 6 | 50 |

Renaissance of the "TOMOBIKI Night!!" social streaming program for geospatial information science and technology

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"TOMOBIKI Night!!" is a streaming program which was originally broadcasted in 2010-2012. The main topic of the program was archaeology and geographical information systems (GIS). The program was broadcasted from Tokyo in every other *tomobiki* day of the Japanese lunar calendar system (approximately once in six days). The duration of each program was one hour in average, and the contents included talk with guests, report of academic/social events, and show of gadgets such as latest applications and instruments. Ustream was used for the streaming platform, and its social streaming facility effectively bridged two anchors and audience. The series halted at the 30th program in July 2012, due to the overwhemingly busy schedule of the anchors.
As one of the anchors moved to Kyoto in 2014, the "TOMOBIKI Night!!" Renaissance Project was launched in the Kansai area (including Osaka, Kyoto, and Nara). During the halt, social media have settled in academia. Streaming videos are taken in scholarly meetings and lectures, and an increasing number of streaming-oriented scholarly meetings, such as the Niconico Gakkai β[2] and One-Hundred-Research-Show series, have been convened. The research interests of the anchors have been widened towards geography and geospatial information sciences. It is also noted that rescue operations in the Great East Japan Earthquake in 2011 enhanced collaborations between researchers, industries, and governmental sectors by means of GIS. Following these trends, the new series of "TOMOBIKI Night!!" deal with a wider range of topics associated with geospatial information science and technology. The first program of the new series was broadcasted in April 2015. After then, one-hour live session is broadcasted from either Nara or Kyoto once in several *tomobiki* days [3]. The structure of the program follows the old series and comprises talk with guests, gadget show, and event news. In addition, an associated streaming program "TOMOBIKI-ja-Night!! GeoGeoWest" [4] is broadcasted from Aoyama Gakuin University in the suburb of Tokyo every Monday during a semester. Streaming platform can be chosen from Ustream, Periscope, and YouTube Live now. This paper reviews the first year of the Renaissance Project and discusses the current status and future directions of social streaming programs in the context of drastically transforming scholarly communications.
[1] Kondo, Y., Ako, T. (2012) "TOMOBIKI Night!!" a Japanese Archaeo-GIS Ustream programme. Demonstration presented at the 40th annual conference of Computer Applications and Quantitative Methods in Archaeology (CAA). held at Universityof Southampton, 26-29 March 2012. https://www.ocs.soton.ac.uk/index.php/CAA/2012/paper/view/356 (Accessed 17 February 2016)
[2] Niconico Gakkai βChannel http://ch.nicovideo.jp/niconicogakkai (Acccessed 17 February 2016)
[3] TOMOBIKI Night!! https://www.youtube.com/channel/UCrGyVZYqz6l0Qwm-jQg4bVw?spfreload=10 (Accessed 18 February 2016)
[4] AGU GSC on Air https://www.youtube.com/channel/UCrHdfBuNA3qyfLNAPyv3T8w (Accessed 17 February 2016)

Keywords: social streaming, geospatial information, scholarly communication

Operation of the accademic community with the researchmap
*Case study of the Japan Consortium for Arctic Environmental Research (JCAR)*

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Japan Consortium for Arctic Environmental Research (JCAR) was established by arctic environmental researchers in Japan, and it is a nationwide network-based organization for promoting arctic environmental research. The number of member is about 400 people, as the same as the medium-sized academic community. It has already become difficult to take the communication among members, and JCAR office was seeking a new communication tool as a network type organization. We have compared various tools, and selected "researchmap". We create a JCAR community on the researchmap on October 2014, and we have operated it. By using researchmap, it has succeeded in providing the following functions.
-Deliver news and information via e-mail without mailing list
-Electronic voting
-File sharing
-JCAR member information sharing
In this presentation, we want to introduce the case study of the academic community using the researchmap, and share to other academic community.

Keywords: Social Network Service, Communication, researchmap

Social Media GIS to Support the Utilization of Disaster Information for Disaster Reduction Measures

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This study aims to design and develop a social media GIS for reducing the effects of natural disasters in normal times through to disaster outbreak times. This is achieved by designing and developing a social media GIS that integrates a Web-GIS with an SNS and Twitter, and includes a function for classifying submitted information. The social media GIS enables disaster information provided by local residents and governments to be mashed up on a GIS base map, and for the information to be classified and provided to support the utilization of the information by local residents. Further, the present study also aims to operate the social media GIS and evaluate the operation. During normal times when there is no disaster, disaster information is collected via the SNS, and local disaster information is accumulated. Through this, the system aims to improve the disaster prevention awareness of local residents. Further, during disaster outbreaks when there is an excess of information, if a communications environment (electricity, internet, information terminals, etc.) can be secured, the system aims to support evacuation activities by automatically classifying disaster information, promptly displaying it on the digital map of the Web-GIS, and ensuring its noticeability. Through having people use the system routinely and get used to it in normal times in this manner, the possibility that the system can be effectively used with no problem as a means for reducing the effects of natural disasters even in tense situations during disaster outbreaks can be anticipated.
The conclusions of this study are summarized in the following three points.
(1) Social media GIS, an information system which integrates Web-GIS, SNS and Twitter in addition to an information classification function, a button function and a ranking function into a single system, was developed. This made it propose an information utilization system based on the assumption of disaster outbreak times when information overload happens as well as normal times. The system unambiguously has the function for full-screen display of digital map, and the button function and ranking function of disaster information.
(2) The social media GIS was operated for fifty local residents who are more than 18 years old for eight weeks in Mitaka City, Tokyo. Although about 32% of the users were in their forties, about 30% were aged fifties, and more than 10% of the users were in their twenties, thirties and sixties or more.
(3) The system was evaluated based on the results of an access survey using log data during operation and an analysis of the submitted information. The access survey showed that 260 pieces of disaster information were distributed throughout the whole city of Mitaka. Among the disaster information, danger-related information occupied 20%, safety-related information occupied 68%, and other information occupied 12%.

Keywords: Social Media GIS, Web-GIS, SNS, Twitter, Disaster Reduction, Support for Information Utilization

Approach to build collective intelligence using SNS in earth science

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The possibility of the construction of collective intelligence using the Internet is recently discussing, however the approach to collective intelligence in earth science is rear. I will show the case study of the attempt in the North Ibaraki Geopark, and bring up real problems.

Keywords: collective intelligence, Facebook, geopark